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A LIST OF TRICLAD TURBELLARIANS FROM NEPAL IN KAWAKATSU'S COLLECTION PART I: A LIST WITH MAPS

by

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INTRODUCTION

During the past 35 years, KAWAKATSU obtained a considerable number of preserved specimens of freshwater planarians from the Kingdom of Nepal for taxonomic study. The main sources are as follows:

1) The 1962 collection by Dr. Toshio YASUDA (the former member of the Ōsaka Prefectural University Himalayan Expedition, 1962; a single station in Kangbachen, Northeastern Nepal); 2) the 1965 collection by YONEDA (the former member of the Central Nepal Himalaya Geological and Glaciological Expedition, 1965; 53 stations in Central Nepal); 3) the 1967 collection by Dr. Kuniyuki ITÔ (a medical doctor dispatched from the Japan Overseas Christian Medical Cooperative Service = JOCS; 8 stations in Southern and Central Nepal); 4) the 1968 collection by Dr. Takeshi MATSUMURA (the former member of the Hokkaidô University Scientific Expedition to Nepal Himalaya, 1968; 5 stations in Central Nepal); 5) the 1972 collection by Dr. K. ITÔ (a medical doctor dispatched from the JOCS; 9 stations in Northeastern Nepal and 1 station in Assam, India); 6) the 1977 collection by Mr. Makoto NEBUKA (the former member of the Meiji University Himaluri Expedition, 1977; 1 station in Central Nepal); 7) the 1996 collection by Hitoshi MURAYAMA (a private trip to Nepal; 1 station in Southern Nepal).

Among these samples, only the 1962 collection was reported as *Polycelis* sp. (cf. ICHIKAWA & KAWAKATSU, 1964). Preserved specimens of the other collections examined briefly by KAWAKATSU consist of 2 groups of planarians: *Dugesia* sp. (spp.?) and *Polycelis* sp. (spp.?) and/or *Seidlia* sp. (spp.?). These samples will be studied with Dr. Ronald SLUYS of Universiteit Amsterdam, the Netherlands.

The present paper is primarily a list of localities of planarian species from Nepal now retained in KAWAKATSU's laboratory, together with a sketch-map showing their localities. Photographs of preserved specimens from several localities are given. For MURAYAMA's collection, photographs of the locality at Namche Bazar and the landscape of its vicinity are also given, together with a highly magnified photograph of live planarian specimens taken at the spot.

In the following lists, KAWAKATSU's Specimen Lot Number for each sample is given. Since all of the species in the following lists are not yet identified, each species has been listed tentatively as "*Dugesia* sp." and "*Polycelis* sp."

The trekking routes of Expeditions and principal localities of planarians are shown in the sketch-map of Fig. 1.

1. The 1962 Collection by Dr. T. YASUDA Fig. 1 ①.

No. 1. Specimen Lot No. 361. *Polycelis* sp. of Kangbachen. Eleven asexual specimens; uniform dark brown or black coloration; 5–8 mm long and 1 mm wide. The animals were fixed with 10% formalin solution. Locality: A spring-fed stream at Kangbachen, near the lower end of the Nupchu Glacier, NE Nepal (alt. 4160 m). June 3, 1962.

Serial sections and a whole mount of the head (No. 361a-k) are retained in KAWAKATSU's laboratory. Cf. ICHIKAWA & KAWAKATSU, 1964 (pp. 27–31, figs. 1 A-B and 2).

2. The 1965 Collection by I. YONEDA Fig. 1 ②.

No. 2. Specimen Lot No. 801. *Dugesia* sp. of Tansen-Riri Bazar. Twenty-six asexual specimens; uni-

form pale brown above; 8–10 mm long and 0.8–2 mm wide; fixed with 70% ethanol. Locality: a small stream at Tansen-Riri Bazar, Chan Bandin (alt. 1380 m). Oct. 6, 1965 (w. t., 19°C, pH 6.5).

No. 3. Specimen Lot No. 802. *Dugesia* sp. of Chutra Basi. Six asexual specimens; pale brown above; 3–5 mm long and 0.5–0.8 mm wide; fixed with 70% ethanol. Locality: a stream at Chutra Basi (alt. 1100 m). Oct. 11, 1965 (w. t., 23.7°C).

No. 4. Specimen Lot No. 803. *Dugesia* sp. of Khunjrikot. A single asexual specimen; pale brown above; 3 mm long and 0.5 mm wide; fixed with 70% ethanol. Locality: a small stream, 2 km NW of Khunjrikot (alt. 920 m). Oct. 19, 1965 (w. t., 22°C).

No. 5. Specimen Lot No. 804. *Dugesia* sp. of Darbane. Eight asexual (?) specimens; dark grayish brown above; 6–8 mm long and 0.6–2 mm wide; fixed with 70% ethanol. Locality: a small stream at Darbane,

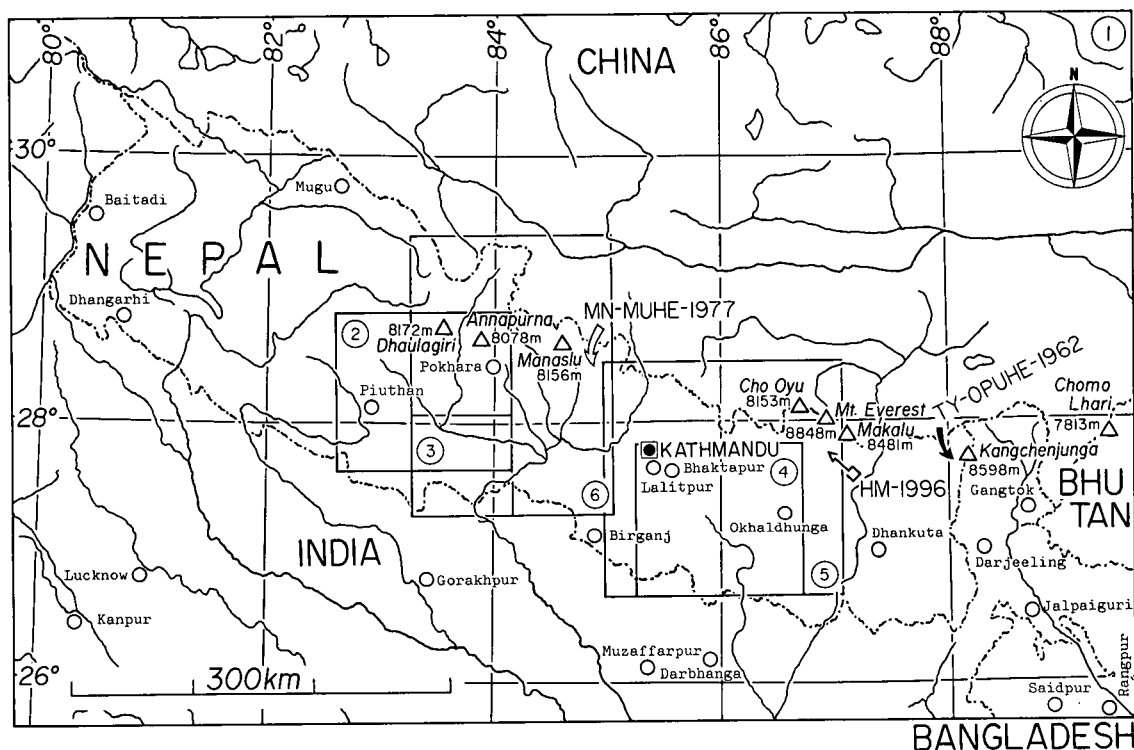


Fig. 1. Sketch-map of Nepal, showing the routes of Expeditions mentioned in this report and principal localities where planarian samples were collected. For 5 rectangle areas (②–⑥) in the map ①, see each sketch-map. ②, the 1965 Collection (after "Central Nepal Geolog. Glaciol. Exped., 1968"); ③ and ④, the 1967 Collections; ⑤ and ⑥, the 1968, 1977 and 1996 Collections ("after Hokkaido Univ. Sci. Exped. to Nepal Himalaya, 1968"; modified). The area where planarians were collected by Dr. ITÔ (the 1972 Collection) may be located in the Northwestern Nepal. TY-OPUHE-1962: the 1962 locality by Dr. T. YASUDA; MN-MUHE-1977 locality by Mr. M. NEBUKA; HM-1996: the 1996 locality by H. MURAYAMA.

NE of Kharsinge (alt. 1900 m). Oct. 21, 1965 (w. t., 17 °C).
A specimen of a leech was also obtained.

No. 6. Specimen Lot No. 805. *Dugesia* sp. of Darbane. Fifteen asexual (?) specimens; dark brown to blackish brown above; 6–10 mm long and 0.8–2 mm wide; fixed with 70% ethanol. Locality: a downstream of St. 5 (ca. 300 m) (alt. 1900 m). Oct. 21, 1965 (w. t., 19.4 °C).

No. 7. Specimen Lot No. 806. *Dugesia* sp. of Darbane. A single asexual specimen without the tail region; pale brown above; 6 mm long and 0.7 mm wide; fixed with 70% ethanol. Locality: a stream at Darbane (alt. 1900 m). Oct. 21, 1965 (w. t., 18 °C).

No. 8. Specimen Lot No. 807. *Dugesia* sp. of Banble. Thirty-five sexual and asexual specimens; dark brown to blackish brown above; 5–13 mm long and 0.6–2.5 mm wide; fixed with 70% ethanol. Locality: a small stream and a brooklet flow out from a rice-field (alt. 1450

m). Oct. 21, 1965 (w. t., 17.9–24.6 °C, pH 6.6–7.2).

No. 9. Specimen Lot No. 808. *Dugesia* sp. of Grapa. Three asexual specimens; pale brown above; 6 mm long and 0.8 mm wide; fixed with 70% ethanol. Locality: a small stream at Garpa Village (alt. 1420 m). Oct. 22, 1965 (w. t., 19.2 °C).

No. 10. Specimen Lot No. 809. *Polycelis* sp. of Dhngsi Pass. Five asexual specimens; dark brown above; 5–7 mm long and 0.6–0.7 mm wide; fixed with 70% ethanol. Locality: Dhngsi Pass, Takor (alt. 2920 m). Oct. 23, 1965 (w. t., 10 °C).

No. 11. Specimen Lot No. 810. *Dugesia* sp. of Rataban. Two asexual specimens; dark brown above; 6–8 mm long and 0.7–1 mm wide; fixed with 70% ethanol. Locality: Rataban (alt. 2200 m). Oct. 24, 1965 (w. t., 15 °C)

No. 12. Specimen Lot No. 811. *Dugesia* sp. of

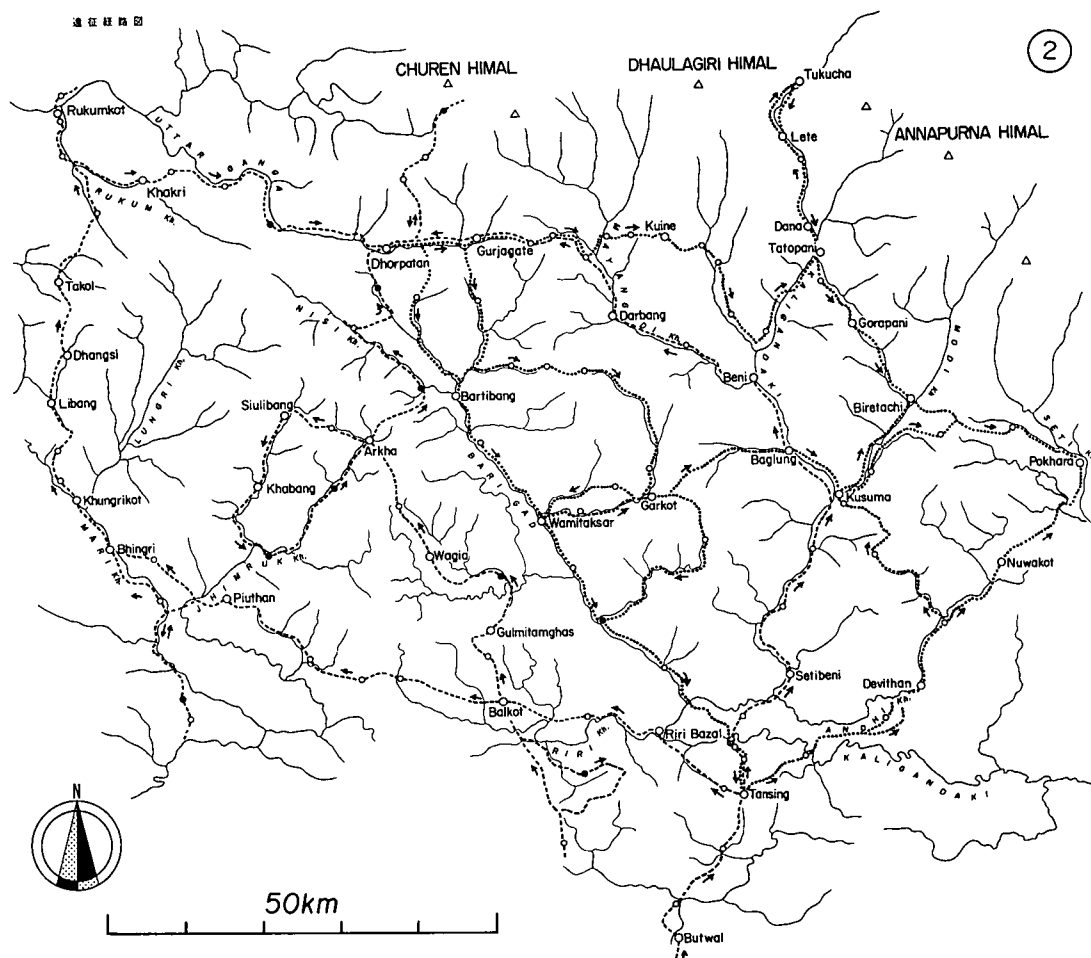


Fig. 1-②. For explanation, see page 96.

Rataban. Four sexual and asexual specimens; blackish brown above; 8–10 mm long and 2–3 mm wide; fixed with 70% ethanol. Locality: Rataban (alt. 2200 m). Oct. 24, 1965 (w. t., 14°C).

No. 13. Specimen Lot No. 812. *Polycelis* sp. of Rataban. A single asexual specimen; dark brown above; 7 mm long and 0.8 mm wide; fixed with 70% ethanol.

Locality: Rataban (alt. 2250 m). Oct. 24, 1965 (w. t., 14°C)

No. 14. Specimen Lot No. 813. *Dugesia* sp. of Dharamshra. Four asexual specimens; pale brown above; 5–8 mm long and 0.6–0.8 mm wide; fixed with 70% ethanol. Locality: 2 km N of Dharamshara (alt. 1880 m). Oct. 25, 1965 (w. t., 15°C)

No. 15. Specimen Lot No. 814. *Dugesia* sp. of Dharamshar. Six asexual specimens; dark brown to blackish brown above; 6–8 mm long and 0.6–1 mm wide; fixed with 70% ethanol. Locality: a stream at 2 km N of Dharamshara (alt. 1880 m). Oct. 25, 1965 (w. t., 14°C).

No. 16. Specimen Lot No. 815. *Dugesia* sp. of Rukum. Twelve asexual (?) specimens; pale brown above; 6–8 mm long and 0.6–1 mm wide; fixed with 70% ethanol. Locality: The Rumghar River, 3 km S of Rukum (alt. 1440 m). Oct. 25, 1965 (w. t., 17.5°C).

No. 17. Specimen Lot No. 816. *Dugesia* sp. of Khorza. Fourteen asexual specimens; pale brown above; 6–10 mm long and 0.6–1.2 mm wide; fixed with 70% ethanol. Locality: a river at 3 km E of Khorza (alt. 1500 m). Nov. 2, 1965 (w. t., 13.5°C).

No. 18. Specimen Lot No. 817. *Dugesia* sp. of Khorza. Three asexual specimens; dark grayish brown above; 5–7 mm long and 0.6–0.8 mm wide; fixed with 70% ethanol. Locality: a river at the station between Khorza and Khakri (alt. 1700 m). Nov. 2, 1965 (w. t., 17°C).

No. 19. Specimen Lot No. 818. *Dugesia* sp. of Khakri. A single asexual specimen; dark brown above; 8 mm long and 1 mm wide; fixed with 70% ethanol. Locality: a stream at Khakri Khora, Khakri (alt. 1820 m). Nov. 2, 1965 (w. t., 15.5°C).

No. 20. Specimen Lot No. 819. *Dugesia* sp. of Khakri. Twenty-five sexual and asexual specimens; pale brown above; 8–15 mm long and 1–3.5 mm wide; fixed with 70% ethanol. Locality: a small stream at 4 km E of Khakri (alt. 2500 m). Nov. 3, 1965 (w. t., 15°C).

No. 21. Specimen Lot No. 820. *Dugesia* sp. of Seherakhora. Three asexual specimens; brown above; 5–8 mm long and 0.6–1 mm wide; fixed with 70% ethanol. Locality: The Seherakhora River, Sehera (alt. 2200 m). Nov. 4, 1965 (w. t., 12°C).

No. 22. Specimen Lot No. 821. *Dugesia* sp. of Seherakhora. Seven sexual and asexual specimens; dark brown above; 6–8 mm long and 0.6–1 mm wide; fixed with 70% ethanol. Locality: the Seherakhora River, 3 km E of Sehera (alt. 2250 m). Nov. 4, 1965 (w. t., 11°C).

No. 23. Specimen Lot No. 822. *Dugesia* sp. of Dhamchan. Twenty-five sexual and asexual specimens; pale brown above; 8–13 mm long and 1–2.5 mm wide; fixed with 70% ethanol. Locality: a spring-fed stream at the station between Dhamchan and Dharpatan (alt. 2820 m). Nov. 5, 1965 (w. t., 9.5°C).

No. 24. Specimen Lot No. 823. *Dugesia* sp. of Dhamchan. Eleven sexual and asexual specimens including fragments; pale brown above; 6–12 mm long and 0.7–3 mm wide; fixed with 70% ethanol. Locality: a small stream at the station between Dhamchan and Dhor (alt. 2880 m). Nov. 6, 1965 (w. t., 14.5°C).

No. 25. Specimen Lot No. 824. *Dugesia* sp. of Dhorpatan. Ten sexual and asexual specimens including fragments; dark brown above; 6–12 mm long and 0.7–3.5 mm wide; fixed with 70% ethanol. Locality: a small stream at Dhorpatan (alt. 2850 m). Nov. 11, 1965 (w. t., 7°C).

No. 26. Specimen Lot No. 825. *Polycelis* sp. of Dhorpatan. Seventeen sexual (?) and asexual specimens; yellowish brown above; 5–10 mm long and 0.5–1.5 mm wide; fixed with 70% ethanol. Locality: a small stream at Dhorpatan (alt. 3000 m). Nov. 11, 1965 (w. t., 8°C).

No. 27. Specimen Lot No. 826. *Dugesia* sp. of Khani. Thirteen sexual and asexual specimens; blackish brown above; 6–10 mm long and 0.8–2 mm wide; fixed with 70% ethanol. Locality: The Gadi Khola River, 1 km upper stream from Khani (alt. 2250 m). Nov. 11, 1965 (w. t., 10.5°C).

No. 28. Specimen Lot No. 827. *Dugesia* sp. of Khani. Five sexual (?) and asexual specimens; blackish brown above; 6–10 mm long and 0.6–2.5 mm wide; fixed with 70% ethanol. Locality: a small stream at Khani (alt. 2030 m). Nov. 12, 1965 (w. t., 16.5°C).

No. 29. Specimen Lot No. 828. *Dugesia* sp. of Kharha Bazar. Thirty-three asexual specimens; pale brown above; 6–8 mm long and 0.6–1 mm wide; fixed with 70% ethanol. Locality: a stream, 1 km S of Kharha Bazar (alt. 740 m). Nov. 14, 1965 (w. t., 17°C).

No. 30. Specimen Lot No. 829. *Dugesia* sp. of Kharha Bazar. Twelve asexual specimens; pale brown above; 6–8 mm long and 0.6–1 mm wide; fixed with 70% ethanol. Locality: a small stream, 4 km S of Kharha Bazar (alt. 730 m). Nov. 14, 1965 (w. t., 15.5°C).

No. 31. Specimen Lot No. 830. *Dugesia* sp. of

Kharha Bazar. Nine asexual specimens; pale brown above; 6-8 mm long and 0.6-0.8 mm wide; fixed with 70% ethanol. Locality: a small stream at the station between Kharha Bazar and Wamitaksar (alt. 690 m). Nov. 14, 1965 (20.5°C).

No. 32. Specimen Lot No. 831. *Dugesia* sp. of Wamitaksar. Fifteen asexual specimens; pale brown above; 5-8 mm long and 0.6-0.8 mm wide; fixed with 70% ethanol. Locality: a river at Wamitaksar (alt. 570 m). Nov. 15, 1965 (w. t., 19.5°C).

No. 33. Specimen Lot No. 832. *Dugesia* sp. of Kharbang. Eighteen asexual specimens; pale brown above; 5-8 mm long and 0.6-1 mm wide; fixed with 70% ethanol. Locality: a stream at Kharbang (alt. 520 m). Nov. 15, 1965 (w. t., 21°C).

No. 34. Specimen Lot No. 833. *Dugesia* sp. of Barighat. Nine asexual specimens and tail pieces; pale brown above; 5-8 mm long and 0.6-0.8 mm wide; fixed with 70% ethanol. Locality: the Barighat River, Kharbang (alt. 520 m). Nov. 15, 1965 (w. t., 19.5°C).

No. 35. Specimen Lot No. 834. *Dugesia* sp. of Kharbang. Fifteen asexual specimens; pale brown above; 5-8 mm long and 0.5-0.8 mm wide; fixed with 70% ethanol. Locality: a small stream, 1 km S of Kharbang (w. t., 19°C).

No. 36. Specimen Lot No. 835. *Dugesia* sp. of Rupakot. Six asexual specimens; pale brown above; 5-8 mm long and 0.6-0.8 mm wide; fixed with 70% ethanol. Locality: an irrigation stream, 4 km N of Rupakot (alt. 440 m). Nov. 16, 1965 (w. t., 22°C).

No. 37. Specimen Lot No. 836. *Dugesia* sp. of Rupakot. Fifty sexual (?) and asexual specimens; pale brown above; 5-8 mm long and 0.6-1 mm wide; fixed with 70% ethanol. Locality: the Habdi Khora River at Rupakot (alt. 370 m). Nov. 18, 1965 (w. t., 22.8°C).

No. 38. Specimen Lot No. 837. *Dugesia* sp. of Rupakot. A single asexual specimen; pale brown above; 4 mm long and 0.6 mm wide; fixed with 70% ethanol. Locality: the Habdi Khora River at Rupakot (alt. 370 m). Nov. 18, 1965 (w. t., 19.5°C).

No. 39. Specimen Lot No. 838. *Dugesia* sp. of Rhanighat. Twenty-five asexual specimens; pale brown above; 5-8 mm long and 0.6-1 mm wide; fixed with 70% ethanol. Locality: a small stream, 1 km S of Rhanighat (alt. 350 m). Nov. 21, 1965 (w. t., 15.5°C).

No. 40. Specimen Lot No. 839. *Dugesia* sp. of Rhanighat. Eight asexual specimens and fragments; pale grayish brown above; 5-8 mm long and 0.5-0.8 mm wide; fixed with 70% ethanol. Locality: a small stream, 4 km S of Rhanighat (alt. 950 m). Nov. 21, 1965 (w. t.,

18.2°C).

No. 41. Specimen Lot No. 840. *Dugesia* sp. of Dharamdhara. Thirty asexual specimens; pale brown above; 5-8 mm long and 0.6-1 mm wide; fixed with 70% ethanol. Locality: a stream at Dharamdhara (alt. 550 m). No. 24, 1965 (w. t., 19.5°C).

No. 42. Specimen Lot No. 841. *Dugesia* sp. of Dharamdhara. Three asexual specimens; pale brown above; 4-6 mm long and 0.5-0.7 mm wide; fixed with 70% ethanol. Locality: a small stream at the station between Dharamdhara and Marunga (alt. 460 m). Nov. 24, 1965 (w. t., 18°C).

No. 43. Specimen Lot No. 842. *Dugesia* sp. of Marunga. Fifty sexual and asexual specimens; pale brown to grayish brown above; 5-10 mm long and 0.6-1.5 mm wide; fixed with 70% ethanol. Locality: a small stream, 1 km SW of Marunga (alt. 370 m). Nov. 25, 1965 (w. t., 15°C).

No. 44. Specimen Lot No. 843. *Dugesia* sp. of Phatekhora. Thirty-three sexual (?) and asexual specimens; pale brown above; 5-10 mm long and 0.6-1 mm wide; fixed with 70% ethanol. Locality: a spring-fed stream, Phatekhora (alt. 620 m). Nov. 25, 1965 (w. t., 20°C).

No. 45. Specimen Lot No. 844. *Dugesia* sp. of Phatekhora. Twenty-two asexual specimens; pale brown above; 5-8 mm long and 0.6-1 mm wide; fixed with 70% ethanol. Locality: a stream at Phatekhora (alt. 590 m). Nov. 25, 1965 (w. t., 18.5°C).

No. 46. Specimen Lot No. 845. *Dugesia* sp. of Phatekhora. Thirty-two asexual specimens; pale brown above; 5-8 mm long and 0.6-1 mm wide; fixed with 70% ethanol. Locality: a small stream at Phatekhora (alt. 500 m). Nov. 26, 1965 (w. t., 15°C).

No. 47. Specimen Lot No. 846. *Dugesia* sp. of Ghoirathok. Twenty-eight sexual and asexual specimens; pale brown above; 5-10 mm long and 0.6-2.5 mm wide; fixed with 70% ethanol. Locality: a small stream at Ghoirathok (alt. 540 m). Nov. 26, 1965 (w. t., 18°C).

No. 48. Specimen Lot No. 847. *Dugesia* sp. of Ghoirathok. Twenty-three asexual specimens; pale brown above; 5-8 mm long and 0.6-0.8 mm wide; fixed with 70% ethanol. Locality: an irrigation stream, Ghoirathok (alt. 540 m). Nov. 27, 1965 (w. t., 19.5°C).

No. 49. Specimen Lot No. 848. *Dugesia* sp. of Dharm Khora. Fifty asexual specimens; pale brown above; 5-8 mm long and 0.6-1 mm wide; fixed with 70% ethanol. Locality: a small tributary of the Dharm Khora River, near the junction at Ghoirathok (alt. 720 m). Nov. 27, 1965 (w. t., 20°C).

No. 50. Specimen Lot No. 849. *Dugesia* sp. of Archaur. Eight asexual specimens; pale brown above; 5–10 mm long and 0.6–1 mm wide; fixed with 70% ethanol. Locality: a stream, 1 km N of Archaur (alt. 1520 m). Nov. 28, 1965 (w. t., 9°C).

No. 51. Specimen Lot No. 850. *Dugesia* sp. of Archaur. Thirteen asexual specimens; pale brown above; 5–8 mm long and 0.6–0.8 mm wide; fixed with 70% ethanol. Locality: a small stream near Archaur (alt. 910 m). Nov. 28, 1965 (w. t., 16.8°C).

No. 52. Specimen Lot No. 851. *Dugesia* sp. of Mhodi Khora. Fifty asexual specimens; pale brown above; 5–8 mm long and 0.6–1 mm wide; fixed with 70% ethanol. Locality: a small tributary of the Mhodi Khora River near the junction (alt. 640 m). Nov. 29, 1965 (w. t., 17°C).

No. 53. Specimen Lot No. 852. *Dugesia* sp. of Badule. Eight asexual specimens; pale brown above; 5–10 mm long and 0.6–1 mm wide; fixed with 70% ethanol. Locality: a stream at Badule (alt. 1300 m). Dec. 1, 1965 (w. t., 14°C).

No. 54. Specimen Lot No. 853. *Dugesia* sp. of Pokhara. Over 100 sexual and asexual specimens; pale brown above; 5–10 mm long and 0.6–1.2 mm wide; fixed with 70% ethanol. Locality: the Phewa-tal River at Pokhara (alt. 680 m). Dec. 3, 1965 (w. t., 19°C).

3. The 1967 Collection by Dr. K. ITÔ Fig. 1 ③, ④.

No. 55. Specimen Lot No. 854. Fragments and a single specimen of aquatic insect. Fixed with 3% for-

malin solution. Locality: a waterfall, lower, at Thamgus, Lumbini (alt. 1982 m). Oct. 23, 1967.

No. 56. Specimen Lot No. 855. Fragments. Fixed with 3% formalin solution. Locality: the station closely near the St. No. 55. Oct. 23, 1967.

No. 57. Specimen Lot No. 856. *Dugesia* sp. of Lyli. Fifteen asexual specimens; pigments were lost in the preserved specimens; 5–8 mm long and 0.9–1 mm wide; fixed with 3% formalin solution. Locality: a spring-fed stream at Lyli, Dalpa, Lumbini (alt. 915 m). Nov. 1, 1967 (w. t., 14°C; pH 6.2).

No. 58. Specimen Lot No. 857. *Dugesia* sp. of Lyli. Three asexual specimens; pigments were lost in the preserved specimens; 5–8 mm long and 1 mm wide; fixed with 3% formalin solution. Locality: the station closely near the St. No. 57. Nov. 1, 1967 (w. t., 18°C; pH 6.2).

No. 59. Specimen Lot No. 858. *Polycelis* sp. of Okhaldunga. Six sexual and asexual specimens; pigments were lost in the preserved specimens; 10–16 mm long and 1.5–3 mm wide; fixed with 3% formalin solution. Locality: a spring-fed stream (a place for a drawing water), Okhaldunga, Sagarmath (alt. 1525 m). Nov. 15, 1967 (w. t., 11°C; pH 4.6).

No. 60. Specimen Lot No. 859. Fragments and several specimens of a leech. Fixed with 3% formalin solution. Locality: the station closely near the St. No. 59. Nov. 18, 1967 (w. t., 9°C; pH 4.6).

No. 61. Specimen Lot No. 860. *Dugesia* sp. of Chisopani. Thirteen asexual specimens; pigments were lost in the preserved specimens; 6–15 mm long and 0.8–

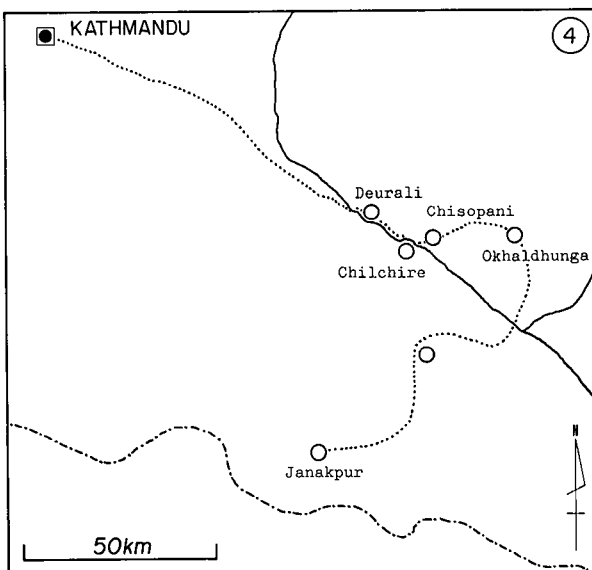
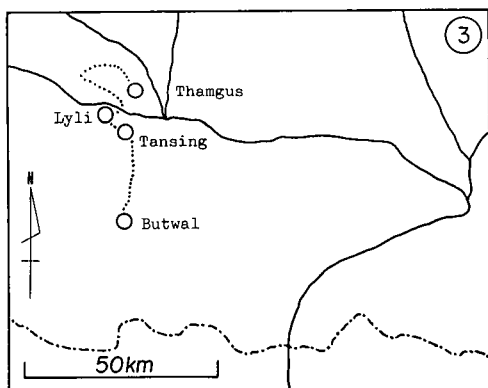


Fig. 1-③, -④. For explanation, see page 96.
For Fig. 1-⑤, -⑥, see Part II of this series.

2.5 mm wide; fixed with 3% formalin solution. Locality: a spring-fed stream (a place for a drawing water), Chisopani, Okhaldhunga, Sagarmatha (alt. 1220 m). Nov. 21, 1967 (w. t., 15 °C; pH 6.2). Many specimens of a leech were also obtained from this locality.

No. 62. Specimen Lot No. 861. *Dugesia* sp. of Chilchire. Thirty asexual specimens; pigments were lost in the preserved specimens; 8–10 mm long and 0.8–1 mm wide; fixed with 3% formalin solution. Locality: a stream at Chilchire, Okhaldhunga, Sagarmatha (alt. 915 m). Nov. 21, 1967 (w. t., 17 °C; pH 4.6).

No. 63. Specimen Lot No. 862. *Dugesia* sp. of Deurali. Thirty asexual specimens; pigments were lost in the preserved specimens; 6–8 mm long and 0.6–1 mm wide; fixed with 3% formalin solution. Locality: a spring-fed stream (a place for a drawing water), Deurali, Sindhuli, Janakpur (alt. 763 m). Nov. 22, 1967 (w. t., 20 °C; pH 6.6).

4. The 1968 Collection by Dr. T. MATSUMURA

Fig. 1 ㊦, ㊧.

No. 64. Specimen Lot No. 863. *Dugesia* sp. of Bataju. Thirty asexual specimens; dark brown above (ventral is also dark coloration) with conspicuous sensory spots on the anterior edge of the head; 5–6 mm long and 0.8–1.2 mm wide; fixed with 3% formalin solution. Locality: a lotus pond in a garden of the Temple, Bataju, Kathmandu (alt. 1400 m). Apr. 4, 1968.

No. 65. Specimen Lot No. 864. *Dugesia* sp. of Bataju. Eighteen sexual and asexual specimens; pale brown above; 8–12 mm long and 2.5–4 mm wide; fixed with 3% formalin solution. Locality: a stream in the Bataju Park, Bataju, Kathmandu (alt. 1400 m). April 4, 1968.

No. 66. Specimen Lot No. 865. *Polycelis* sp. of Gosain Kund. Eight asexual specimens and fragments; dark brown above; 6–7 mm long and 0.8 mm wide; fixed with 3% formalin solution. Locality: a stream of Gosain Kund (Gosainkund; alt. 4300 m). Apr. 5, 1968.

No. 67. Specimen Lot No. 866. *Polycelis* sp. of Larjung. A single sexual specimen; blackish brown above (ventral is also dark coloration); 10 mm long and 2.5 mm wide; fixed with 3% formalin solution. Locality: a stream at Larjung, Kali Gandaki (alt. 2530 m). May 8, 1968.

No. 68. Specimen Lot No. 867A. *Dugesia* sp. of Bataju. Forty sexual and asexual specimens; pale brown above; 8–12 mm long and 1–3 mm wide; fixed with 3% formalin solution. Locality: a stream in the

Bataju Park, Bataju, Kathmandu (alt. 1400 m). April 22, 1968. The same locality as the St. No. 65.

No. 69. Specimen Lot No. 867B. *Polycelis* sp. of Bataju. A single asexual specimen; pale gray above; 2 mm long and 0.5 mm wide; fixed with 3% formalin solution. Locality: a stream in the Bataju Park (the same locality as the St. No. 68). Apr. 22, 1968.

5. The 1972 Collection by Dr. K. ITÔ

No. 70. Specimen Lot No. 1190. *Polycelis* sp. of Pike. Thirteen asexual specimens; dark brown above; 5–8 mm long and 0.6–0.8 mm wide; fixed with 3% formalin solution. Locality: a spring-fed stream at Pike (alt. 3500 m). Jan. 7, 1972.

No. 71. Specimen Lot No. 1191. *Polycelis* sp. of Pike. Eleven asexual specimens; dark brown to grayish brown above; 6–10 mm long and 0.6–1.2 mm wide; fixed with 3% formalin solution. Locality: a stream at Pike (alt. 3200 m). Jan. 7, 1972.

No. 72. Specimen Lot No. 1192. *Polycelis* sp. of Pike. Eight asexual specimens; grayish brown above; 5–6 mm long and 0.6–0.8 mm wide; fixed with 3% formalin solution. Locality: a stream at Pike (alt. 3720 m). Jan. 6, 1972.

No. 73. Specimen Lot No. 1193. *Dugesia* sp. of Dunda. Three asexual specimens and fragments; dark brown above; 10 mm long and 1 mm wide; fixed with 3% formalin solution. Locality: a stream at Dunda (alt. 2000 m). Jan. 9, 1972.

No. 74. Specimen Lot No. 1194. *Dugesia* sp. of Shiruwa. Seven sexual and asexual specimens; dark brown above; 8–12 mm long and 1–3 mm wide; fixed with 3% formalin solution. Locality: a stream at Shiruwa (alt. 2000 m). Jan. 9, 1972.

No. 75. Specimen Lot No. 1195. *Dugesia* sp. of Dolu. A single asexual specimen; dark brown above; 10 mm long and 1.5 mm wide; fixed with 3% formalin solution. Locality: a stream at Dolu (alt. 1600 m). Jan. 10, 1972.

No. 76. Specimen Lot No. 1196. *Dugesia* sp. of Dolu. Six asexual (?) specimens; dark brown above; 8–13 mm long and 1–3.5 mm wide; fixed with 3% formalin solution. Locality: a lower stream of a waterfall at Dolu (alt. 1600 m). Jan. 10, 1972.

No. 77. Specimen Lot No. 1197. *Dugesia* sp. of Digarpu. Eighteen asexual specimens and fragments; dark brown above; 6–8 mm long and 0.6–1 mm wide; fixed with 3% formalin solution. Locality: a stream at Digarpu (alt. 1400 m). Jan. 10, 1972.

No. 78. Specimen Lot No. 1198. *Dugesia* sp. of Wajipu. A single asexual specimen (the head is broken); pale brown above; 5 mm long and 0.6 mm wide; fixed with 3% formalin solution. Locality: a stream at Wajipu (alt. 1000 m). Jan. 11, 1972.

(No. 79. Specimen Lot No. 1199.) Fragments and a single specimen of a leech. Locality: Shillong, Assam, India (alt. 1800 m). Apr. 15, 1972.

6. The 1977 Collection by Mr. M. NEBUKA Fig. 1 ⑥.

No. 80. Specimen Lot No. 1431. *Polycelis* sp. of Shuran. Fifteen sexual and asexual specimens; dark brown above; 6–10 mm long and 0.5–1.2 mm wide; fixed with 3% formalin solution. Locality: a stream at Shuran Valley, the east side of Himal Chuli (alt. 4150 m). Apr.

19, 1977.

This material was received from Dr. W. TESHIROGI in 1977. At that time, Mr. S. SASAKI (Hirosaki Univ.) examined the number of eyes; a total of 83 small eyes was observed in a large specimen.

7. The 1996 Collection by H. MURAYAMA Fig. 1 ⑤.

No. 81. Specimen Lot No. 2262. *Polycelis* sp. of Namche Bazar. Eight sexual and asexual specimens; dark or blackish brown above, with numerous, small pigment patterns of light coloration (grayish coloration on the ventral side); 8–12 mm long and 2–3.5 mm after preservation with 75% ethanol. Locality: a large spring-fed stream (a place for a drawing water) at Namche Bazar (alt. 3400 m). May 13, 1996. Figs. 4–7.

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Note. Additional maps and photographs are published as Part II of this series.

KAWAKATSU, M., YONEDA, I. & MURAYAMA, H., 1996. A list of triclad Turbellarians from Nepal in KAWAKATSU's Collection. Part II : Additional maps and photographs. Occ. Publ., Biol. Lab. Fuji Women's College, Sapporo (Hokkaidô), Japan, No. 28, pp. 1-4. December 25, 1996.

Note added in the final proof :

The location of the Station Nos. 70-78 (the 1972 Collection by the late Dr. K. ITÔ) is uncertain. There is some possibilities that they are located in India or Bhutan or Pakistan.

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